

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002832**Date Inspected:** 08-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name:	Chen Chih-Ming / Wang Sai Ta			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A

Bridge No: 34-0006**Component:** OBG side, bottom and deck panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC qualified welding personnel perform SMAW on part# LD12C to floorbeam FL1 south SEG-3BE at panel point PP-023.

QA observed ZPMC Ultrasonic Testing (UT) technician performing UT on joint# SEG-018-008A BP-018A to SP-031A OBG segment 4AE.

QA observed ZPMC personnel fitting floor beam FL1 south at panel point PP-025 OBG segment 4AE.

QA observed ZPMC qualified welding personnel perform SAW on SEG-026-002 SP-604 to SP-564.

QA observed ZPMC qualified welding personnel perform SAW on SEG-024-002 SP-359 to SP-332.

QA observed ZPMC qualified welding personnel perform SAW on SEG-021-002 SP-118 to SP-091.

QA observed ZPMC personnel checking the fit up of SP-028 to BP-019 in the OBG fixture using optical equipment.

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

OBG Bay 1

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QA observed ZPMC Magnetic particle Testing (MT) technicians MT'ing tack welds on DP-551-001 prior to welding U-Ribs to deck plate.

QA observed ZPMC qualified welding personnel performed the Gas Metal Arc Weld (GMAW) and Submerged Arc Weld (SAW) 3 Rib PMT# 1 for deck panels DP-601-00 and DP-551-00 on gantry #1. ZPMC welding personnel commenced welding PMT #1 for gantry #1 at 0021 hrs for the above mentioned deck panels. QC and QA visually inspected and accepted 500mm segments of each weld on this PMT panel. ZPMC's QC Ultrasonic Testing (UT) technician ultrasonically inspected and accepted the same 500mm segments of each weld based on the depth of penetration acceptance criteria for closed Rib to deck plate Partial Joint Penetration (PJP) welds specified in the contract documents. Caltrans waived the UT for this PMT today. QA laid-out, match marked and stenciled 5 macro specimens on each PMT rib. QA completed a U-Ribs PMT inspection report for this date and gantry. The report is on file in the Caltrans QA office. The welding parameters and welder ID's for Gantry 1 PMT #1 are as follows:

GMAW

Volts: 30.2 – 32 Amps: 358 – 388 Travel speed: 535mm/pm

SAW

Volts: 24.9 – 25.6 Amps: 676 – 686 Travel speed: 517mm/pm

Welder ID#'s

Weld joint 1: 059361

Weld joint 2: 062265

Weld joint 3: 059403

Weld joint 4: 059668

Weld joint 5: 059416

Weld joint 6: 059378

Other general observations by QA were as follows:

QA observed ZPMC has approximately 60-70 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, hole drilling at ends of U-Ribs using a drill template, PJP bevel preparation, closed rib splice FCAW welding, closed rib diaphragm fit-up and FCAW welding, closed rib to deck plate fit-up and tack welding.

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Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Hall,Steven	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer
